



# Cisco Identity Services Engine Troubleshooting Guide, Release 1.2

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Revised: July 29, 2013, OL-22934-01

## Contents

This document addresses several categories of troubleshooting information that are related to identifying and resolving problems that you may experience when you use Cisco Identity Services Engine (ISE). This document contains the following sections:

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# Installation and Network Connection Issues

If you believe you are experiencing hardware-related complications, first verify the following on all of your deployed Cisco ISE nodes:

- The external power cable is connected, and the proper power source is being applied.
- The external cables connecting the appliance to the network are all secure and in good order.
- The appliance fan and blower are operating.
- Inadequate ventilation, blocked air circulation, excessive dust or dirt, fan failures, or any environmental conditions that might affect the power or cooling systems.
- The appliance software boots successfully.
- The adapter cards (if installed) are properly installed in their slots, and each card initializes (and is enabled by the appliance software) without problems. Check status LEDs on the adapter card that can aid you identifying a potential problem.

For more information on Cisco ISE hardware installation and operational troubleshooting, including power and cooling requirements and LED behavior, see the [Cisco Identity Services Engine Hardware Installation Guide, Release 1.2](#).

**Tip**

For issues regarding potential Network Access Device (NAD) configuration issues, including AAA, RADIUS, profiler, and web authentication, you can perform several validation analyses by choosing **Operations > Troubleshoot > Diagnostic Tools > General Tools > Evaluate Configuration Validator**.

**Current Installation and Network Connection Troubleshooting Topics**

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## Unknown Network Device

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | Cisco ISE is not able to identify the specified Network Access Device (NAD).   |
| <b>Conditions</b>        | Click the magnifying glass icon in Authentications to display the steps in the Authentication Report. The logs display the following error message: <ul style="list-style-type: none"> <li>11007 Could not locate Network Device or AAA Client Resolution</li> </ul>         |
| <b>Possible Causes</b>   | <ul style="list-style-type: none"> <li>The administrator did not correctly configure the Network Access Device (NAD) type in Cisco ISE.</li> <li>Could not find the network device or the AAA Client while accessing NAS by IP during authentication.</li> </ul>             |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>Add the NAD in Cisco ISE again, verifying the NAD type and settings.</li> <li>Verify whether the Network Device or AAA client is correctly configured in <b>Administration &gt; Network Resources &gt; Network Devices</b></li> </ul> |

## CoA Not Initiating on Client Machine

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | Users logging into the Cisco ISE network are not experiencing the required Change of Authorization (CoA).  |
| <b>Conditions</b>        | Cisco ISE uses port 1700 by default for communicating RADIUS CoA requests from supported network devices.  |
| <b>Possible Causes</b>   | Cisco ISE network enforcement points (switches) may be missing key configuration commands, may be assigning the wrong port (for example, a port other than 1700), or have an incorrect or incorrectly entered key.   |
| <b>Resolution</b>        | <p>Ensure the following commands are present in the switch configuration file (required on switch to activate CoA and configure the switch):</p> <pre>aaa server radius dynamic-author client &lt;Monitoring_node_IP_address&gt; server-key &lt;radius_key&gt;</pre> |

## Users Are Assigned to Incorrect VLAN During Network Access Sessions

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Client machines are experiencing a variety of access issues related to VLAN assignments.  |
| <b>Conditions</b>        | <p>Click the magnifying glass icon in Authentications to launch the Authentication Details. The session event section of the authentication report should have the following lines:</p> <ul style="list-style-type: none"> <li>• %AUTHMGR-5-FAIL: Authorization failed for client (001b.a912.3782) on Interface Gi0/3 AuditSessionID 0A000A760000008D4C69994E</li> <li>• %DOT1X_SWITCH-5-ERR_VLAN_NOT_FOUND: Attempt to assign non-existent or shutdown VLAN 666 to 802.1x port FastEthernet1/9</li> </ul> <p>You can also run the troubleshooting workflow for the authentication. This workflow compares the ACL authentication log that contains RADIUS switch responses with the switch message database. Logging configuration (global) details may also be displayed:</p> <ul style="list-style-type: none"> <li>• Mandatory Expected Configuration Found On Device</li> <li>• logging monitor informational Missing</li> <li>• logging origin-id ip Missing</li> <li>• logging source-interface &lt;interface_id&gt; Missing</li> <li>• logging &lt;syslog_server_IP_address_x&gt; transport udp port 20514 Missing</li> </ul> <p><b>Note</b> The network device must send syslog messages to the Monitoring node server port 20514.</p> |
| <b>Possible Causes</b>   | The switch is missing (or contains the incorrect) name and numbers on the switch.   |
| <b>Resolution</b>        | Verify VLAN configuration(s) on the network access/enforcement points (switches) in your deployment.  |

## Client Machine URL Redirection Function Not Working

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Users are not appropriately redirected to the correct URL for authentication.   |
| <b>Conditions</b>        | <p>The monitoring and troubleshooting configuration validator is designed to catch this. The web authentication configuration (global) details may display something like the following:</p> <ul style="list-style-type: none"> <li>• Mandatory Expected Configuration Found On Device</li> <li>• aaa authorization auth-proxy default group &lt;radius_group&gt; aaa authorization auth-proxy default group radius</li> <li>• aaa accounting auth-proxy default start-stop group &lt;radius_group&gt; Missing</li> <li>• ip admission name &lt;word&gt; proxy http inactivity-time 60 Missing fallback profile &lt;word&gt;</li> <li>• ip access-group &lt;word&gt; in</li> <li>• ip admission &lt;word&gt; Missing</li> <li>• ip http server ip http server</li> <li>• ip http secure-server ip http secure-server</li> </ul> |
| <b>Possible Causes</b>   | The switch is missing the <b>ip http server</b> and/or <b>ip http secure-server</b> command.  |
| <b>Resolution</b>        | Verify and (if necessary) adjust the configuration on the switch.   |

## Cisco ISE Profiler is Not Able to Collect Data for Endpoints

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Known devices on the network are not being profiled according to profiler policies in Cisco ISE.  |
| <b>Conditions</b>        | <p>The monitoring and troubleshooting workflow catches device discovery configuration (global) details like the following:</p> <ul style="list-style-type: none"> <li>• Mandatory Expected Configuration Found On Device</li> <li>• ip dhcp snooping vlan &lt;Vlan_ID_for_DHCP_Snooping&gt; ip dhcp snooping vlan 1-4096</li> <li>• no ip dhcp snooping information option Missing</li> <li>• ip dhcp snooping ip dhcp snooping</li> <li>• ip device tracking ip device tracking</li> </ul> |

|                        |   |
|------------------------|---|
| <b>Possible Causes</b> | One or more Cisco ISE network enforcement points (switches) may be missing the <b>ip dhcp snooping</b> and/or <b>ip device tracking</b> commands that enable Profiler to perform its function.  |
| <b>Resolution</b>      | <p>Verify switch configuration for those network segments where endpoints are not being appropriately profiled to ensure that:</p> <ul style="list-style-type: none"> <li>• The required information to profile the endpoint is being sent to Cisco ISE for it to profile.</li> <li>• Probes are configured on the network Policy Service node entities.</li> <li>• Verify that packets are received at the Cisco ISE profiler module by running the tcpdump function at <b>Operations &gt; Troubleshoot &gt; Diagnostic Tools &gt; General Tools &gt; Tcpdump</b>.</li> </ul> <p><b>Note</b> If you are observing this issue with endpoints on a WAN collected by HTTP, Netflow, and NMAP, ensure that the endpoint IP address has been updated with a RADIUS/DHCP Probe before other attributes are updated using the above probes.</p> |

## RADIUS Accounting Packets (Attributes) Not Coming from Switch

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|--------------------------|--|
| <b>Symptoms or Issue</b> | The switch is not transmitting RADIUS accounting packets (attributes) to the RADIUS server.  |
| <b>Conditions</b>        | <p>Click the magnifying glass icon in Authentications to launch the authentication details. The session event section of the authentication report should show the accounting events. Clicking the accounting events shows that audit-session-id fields are blank because the VSA<sup>1</sup> are blocked and no cisco-av-pair=audit-session-id messages are sent from the switch. The same can be done by running the accounting report for the day, where all audit-session-id fields should be blank.</p> <p><b>Note</b> This issue is reported by the monitoring and troubleshooting configuration validator's RADIUS configuration (global) details.</p> <ul style="list-style-type: none"> <li>– Mandatory Expected Configuration Found On Device</li> <li>– radius-server attribute 6 support-multiple Missing</li> <li>– radius-server attribute 8 include-in-access-req radius-server attribute 8 include-in-access-req</li> <li>– radius-server host &lt;radius_ip_address1&gt; auth-port 1812 acct-port 1813 key &lt;radius_key&gt; Missing</li> <li>– radius-server vsa send accounting radius-server vsa send accounting</li> <li>– radius-server vsa send authentication radius-server vsa send authentication</li> </ul> <p><b>Note</b> Be sure to include “radius-server attribute 25 access-request include” in the switch configuration.</p> |
| <b>Possible Causes</b>   | The Cisco ISE network enforcement device (switch) is missing the <b>radius-server vsa send accounting</b> command.   |
| <b>Resolution</b>        | Verify that the switch RADIUS configuration for this device is correct and features the appropriate command(s).  |

1. VSA = vendor-specific attribute

## Policy Service Node Not Passing Traffic

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|--------------------------|---|
| <b>Symptoms or Issue</b> | Network traffic is not traversing the network segment where a network policy enforcement device is installed.   |
| <b>Conditions</b>        | This issue can affect a Cisco ISE and other types of NADs that have been deployed as Policy Service nodes to interoperate with another network device.  |
| <b>Possible Causes</b>   | There are multiple possible causes for an issue such as this.   |
| <b>Resolution</b>        | <ol style="list-style-type: none"> <li>1. Use the <b>tcpdump</b> command in the NAD command-line interface (CLI) or from the Administration portal at <b>Operations &gt; Troubleshoot &gt; Diagnostic Tools &gt; General Tools &gt; TCP Dump</b> to verify whether the machine is receiving and forwarding traffic as required for your network.</li> <li>2. If the TCP dump operation indicates that the Cisco ISE or NAD is working as configured, verify other adjacent network components.</li> </ol> |

## Registered Nodes in Cisco ISE-Managed List Following Standalone Reinstallation

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|--------------------------|---|
| <b>Symptoms or Issue</b> | The Admin portal displays the Policy Service node host name and configuration information when Cisco ISE is reimaged and installed as a new standalone node.  |
| <b>Conditions</b>        | This applies to a Cisco ISE node previously deployed as the Administration persona managing one or more associated Policy Service nodes.  |
| <b>Possible Causes</b>   | If the Policy Service nodes are still configured to send syslog updates to the Administration persona as it was originally set up, node information is learned when the Administration persona receives syslog messages. That information is likely used to populate the system summary page on the Administration persona.   |
| <b>Resolution</b>        | <p>If you have not “deregistered” the Policy Service nodes from the Cisco ISE node, reconfigure the Policy Service nodes so that it sends syslog messages to itself, rather than the Cisco ISE node and restart the Policy Service node.</p> <p><b>Note</b> If you deregister any associated Policy Service nodes before reinstalling the Cisco ISE software and reconfiguring the Administration persona, the Policy Service nodes will operate in standalone mode and will not transmit the erroneous syslog updates.</p> |

## Primary and Secondary Inline Posture Nodes Heartbeat Link Not Working

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|--------------------------|---|
| <b>Symptoms or Issue</b> | Two Inline Posture nodes that are deployed as high-availability peers appear dead to one another.   |
| <b>Conditions</b>        | Two Inline Posture nodes that are deployed in a “collocated” high-availability deployment.  |
| <b>Possible Causes</b>   | If the eth2 and eth3 interfaces on the Inline Posture nodes are not connected, both nodes will act as though the other node in the deployment has experienced some sort of failure.   |
| <b>Resolution</b>        | The heartbeat protocol requires a direct cable connection between the eth2 interfaces of both nodes in a high-availability pair, as well as a direct cable connection between the eth3 interfaces of the two nodes. You can use any Ethernet cable to make these connections. |

## Cisco SNS-3415 Appliance RAID Configuration Cleared Inadvertently

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | RAID configuration does not exist on the Cisco SNS-3415 series appliance. This RAID configuration needs to be re-configured.  |
| <b>Conditions</b>        | Configuration of RAID on the Cisco SNS-3415 series appliance is done at manufacturing time and you are not required to perform it again. The only reason to re-configure RAID would be if someone inadvertently deletes the RAID configuration.   |
| <b>Possible Causes</b>   | The RAID configuration on the Cisco SNS-3415 series appliance is deleted accidentally.  |
| <b>Resolution</b>        | <ol style="list-style-type: none"> <li>1. Reboot the Cisco SNS-3415 appliance.</li> <li>2. When the appliance is in the process of booting, press <b>Ctrl+M</b>.<br/>The LSI Software RAID Configuration Utility opens displaying the Main Setup Utility window.</li> <li>3. On the <b>Management Menu</b> screen, , select <b>Configure &gt; Clear Configuration</b>.<br/>The Configuration Menu screen appears.</li> <li>4. At the prompt, select <b>Yes</b> to confirm and press <b>Enter</b>.<br/>The virtual drive is deleted from the configuration.</li> <li>5. On the <b>Management Menu</b> screen, choose <b>Configure with your cursor</b>, and press <b>Enter</b>.<br/>The Configuration Menu screen appears.</li> <li>6. Use your cursor to highlight <b>Easy Configuration</b> and press <b>Enter</b>.<br/>The Easy Configuration - Array Selection Menu appears.</li> <li>7. Press the space bar to select <i>ONLIN AOO-xx</i> and add it to the drive group.</li> </ol> |



|  |  |
|--|--|
|  | <ol style="list-style-type: none"> <li>8. Press <b>F10</b> to continue configuration.<br/>The Select Configurable Array(s) dialog box appears.</li> <li>9. Press the space bar to select the drive group.</li> <li>10. Press <b>F10</b> to continue configuration.<br/>The Virtual Drive(s) Configured dialog box appears. This dialog box shows the virtual drive number, RAID level, drive group size, number of stripes, stripe size and drive status.</li> <li>11. Change the virtual drive options from the defaults listed in the dialogbox as needed. Use the cursor keys to navigate between the virtual drive parameters and choose <b>557.8Gb</b>, and <b>RAID 0</b>.</li> <li>12. Highlight <b>Accept</b> and press <b>Enter</b> after you select your virtual drive parameters.<br/>The virtual drive configuration appears.</li> <li>13. Press <b>Esc</b> to continue.</li> <li>14. Click <b>Yes</b> at the prompt to save the configuration.<br/>The LSI Software RAID Configuration Utility begins a background initialization of the virtual drives. New RAID 5 virtual drives require a minimum number of drives for a background initialization to start. If there are fewer drives than the minimum, the background initialization will not start.</li> <li>15. Press <b>Esc</b> 3 times to exit all menus.</li> <li>16. The system displays an Exit prompt. Use the arrow keys to choose <b>Yes</b> and press <b>Enter</b>.<br/>The system prompts you to press <b>CTRL+ALT+DEL</b> to reboot appliance.</li> <li>17. Restart the Cisco SNS-3415 appliance.</li> </ol> |
|--|--|

## Cisco SNS-3495 Appliance RAID Configuration Cleared Inadvertently

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | RAID configuration does not exist on the Cisco SNS-3495 series appliance. This RAID configuration needs to be re-configured.  |
| <b>Conditions</b>        | Configuring RAID on the Cisco SNS-3495 series appliance is done at manufacturing time and you are not required to perform it again. The only reason to reconfigure the RAID would be if someone inadvertently deletes the RAID configuration. |
| <b>Possible Causes</b>   | The RAID configuration on the Cisco SNS-3495 series appliance is deleted accidentally.  |

|                   |  |
|-------------------|--|
| <b>Resolution</b> | <ol style="list-style-type: none"> <li>1. Reboot the Cisco SNS-3495 appliance.</li> <li>2. When the Cisco SNS-3495 appliance is in the process of booting, press <b>Ctrl+H</b> to enter the WebBIOS.<br/>The Controller Selection window appears.</li> <li>3. Click <b>Start</b> to continue.<br/>The main WebBIOS CU window appears.</li> <li>4. Click <b>Configuration Wizard</b> in the left pane of the WebBIOS main window.<br/>The first Configuration Wizard window opens.</li> <li>5. Click the <b>Clear Configuration</b> radio button to clear the existing configuration.</li> <li>6. Click <b>Next</b>.<br/>WebBIOS prompts you indicating that all the existing configuration data will be deleted.</li> <li>7. Click <b>Yes</b> to continue.</li> <li>8. Click <b>Configuration Wizard</b> in the left pane of the WebBIOS main window.<br/>The first Configuration Wizard window opens.</li> <li>9. Click the <b>New Configuration</b> radio button and click <b>Next</b>.<br/>WebBIOS prompts you indicating whether you are sure to continue.</li> <li>10. Click <b>Yes</b>.<br/>The WebBIOS Configuration Method window opens.</li> <li>11. Click the <b>Automatic Configuration</b> radio button</li> <li>12. Click <b>Next</b>.</li> <li>13. From the drop-down list, Choose <b>Redundancy When Possible</b>.</li> <li>14. Click <b>Next</b>.<br/>The WebBIOS displays the proposed new configuration, review the information in the window.</li> <li>15. Click <b>Accept</b>.<br/>WebBIOS prompts you to save the configuration.</li> <li>16. Click <b>Yes</b>.<br/>WebBIOS begins a background initialization of the RAID volumes and a screen appears that enables you to re-initialize the RAID volumes.</li> <li>17. Click the <b>Home</b> button.</li> <li>18. Click the <b>Exit</b> button on the main WebBIOS screen.</li> <li>19. Reboot the Cisco SNS-3495 appliance.</li> </ol> |
|-------------------|--|

## Licensing and Administrator Access

- [Certificate Expired, page 11](#)

## Certificate Expired

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | <ul style="list-style-type: none"> <li>Administrator begins to see alarm messages starting 30 days before certificate expiration.</li> <li>If the certificate has expired, users cannot log into the network via Cisco ISE until the certificate has been refreshed.</li> </ul> |
| <b>Conditions</b>        | This issue can apply to any expired certificates on Cisco ISE.  |
| <b>Possible Causes</b>   | Your Cisco ISE certificate is about to expire or has expired.   |
| <b>Resolution</b>        | Refresh your Cisco ISE trusted certificate.   |

## Configuration and Operation (Including High Availability)

This section contains the following topics:

- [Client Machines Are Unable to Authenticate, page 11](#)
- [Users Are Not Appropriately Redirected to URL, page 12](#)
- [Cannot Download Remote Client Provisioning Resources, page 12](#)
- [Lost Monitoring and Troubleshooting Data After Registering Policy Service Node to Administration Node, page 13](#)
- [Cisco ISE Monitoring Dashlets Not Visible with Internet Explorer 8, page 13](#)
- [Data Out of Sync Between Primary And Secondary ISE Nodes, page 13](#)

## Client Machines Are Unable to Authenticate

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | <ul style="list-style-type: none"> <li>Client sessions are not completing 802.1X authentication.</li> <li>Click the magnifying glass icon in Authentications for the specific DACL to launch the authentication details. The content of the ACL should reveal one or more bad characters.</li> </ul>   |
| <b>Conditions</b>        | <p>Click the magnifying glass icon in Authentications to launch the Authentication Details. The session event section of the authentication report should have the following entry:</p> <pre>%EPM-4-POLICY_APP_FAILURE: IP 0.0.0.0  MAC 0002.b3e9.c926  AuditSessionID 0A0002010000239039837B18  AUTHTYPE DOT1X  POLICY_TYPE Named ACL  POLICY_NAME xACSACLx-IP-acl_access-4918c248  RESULT FAILURE  REASON Interface ACL not configured</pre> |

|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | <ul style="list-style-type: none"> <li>• The DACL syntax may be incorrect or not configured in Cisco ISE.</li> <li>• When Cisco ISE enforces the DACL and there is no preauthentication ACL configured on the switch, the NAD brings down the session and authentication fails.</li> </ul>           |
| <b>Resolution</b>      | <p>Depending on the nature of the problem:</p> <ul style="list-style-type: none"> <li>• Correct the DACL syntax configured in Cisco ISE and ensure that it also includes the <b>permit udp any any</b> command.</li> <li>• Configure the appropriate preauthentication ACL on the switch.</li> </ul> |

## Users Are Not Appropriately Redirected to URL

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Administrator receives one or more “Bad URL” error messages from Cisco ISE.   |
| <b>Conditions</b>        | <p>This scenario applies to 802.1X authentication as well as guest access sessions. Click the magnifying glass icon in Authentications to launch the Authentication Details. The authentication report should have the redirect URL in the RADIUS response section as well as the session event section (which displays the switch syslog messages).</p>  |
| <b>Possible Causes</b>   | Redirection URL is entered incorrectly with invalid syntax or a missing path component.   |
| <b>Resolution</b>        | <p>Verify that the redirection URL specified in Cisco ISE via Cisco-av pair “URL Redirect” is correct per the following options:</p> <ul style="list-style-type: none"> <li>• CWA Redirection URL:<br/>https://ip:8443/guestportal/gateway?sessionId=SessionIdValue&amp;action=cwa</li> <li>• 802.1X Redirection URL:<br/>url-redirect=https://ip:8443/guestportal/gateway?sessionId=SessionIdValue&amp;action=cpp</li> </ul> |

## Cannot Download Remote Client Provisioning Resources

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Administrator receives one or more “java.net.NoRouteToHostException: No route to host” error messages when trying to download client provisioning resources.  |
| <b>Conditions</b>        | This issue applies to any Cisco ISE that is connected to an external client provisioning resource store.  |
| <b>Possible Causes</b>   | Your Internet connection may not be working properly or reliably.   |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>• Verify your internet connection settings.</li> <li>• Ensure that you have configured the correct proxy settings in Cisco ISE at <b>Administration &gt; System &gt; Settings &gt; Proxy</b>.</li> </ul> |

## Lost Monitoring and Troubleshooting Data After Registering Policy Service Node to Administration Node

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The known collection of profiled endpoints is not visible on the secondary Policy Service node when it is registered to the original (primary) Administration persona.  |
| <b>Conditions</b>        | This issue can come up in a deployment in which you register a new Policy Service node to what has been, until the moment of registration, a standalone Cisco ISE node with a large store of known and profiled endpoints.  |
| <b>Possible Causes</b>   | Because of its potentially huge size, monitoring and troubleshooting data is not replicated between two nodes when the new node is registered to the original standalone Cisco ISE node. Cisco ISE does not replicate a data store that could conceivably be gigabytes in size, because it could impact network connectivity in a deployment environment. |
| <b>Resolution</b>        | Ensure that you export monitoring and troubleshooting information <i>prior to</i> registering the new Policy Service node to the formerly standalone Cisco ISE.   |

## Cisco ISE Monitoring Dashlets Not Visible with Internet Explorer 8

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|--------------------------|--|
| <b>Symptoms or Issue</b> | Administrator sees one or more “There is a problem with this website's security certificate.” messages after clicking the dashlets in the Cisco ISE monitoring portal. |
| <b>Conditions</b>        | This issue is specific to Internet Explorer 8. (This issue has not been observed when using Mozilla Firefox.)  |
| <b>Possible Causes</b>   | The security certificate for the Internet Explorer 8 browser connection is invalid or expired.   |
| <b>Resolution</b>        | Use Internet Explorer 8 to reimport a valid security certificate to view the dashlets appropriately.   |

## Data Out of Sync Between Primary And Secondary ISE Nodes

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|---------------------------|--|
| <b>Symptoms or Issues</b> | Administrator sees any one of the following Replication or Sync Status: <ul style="list-style-type: none"> <li>• Out of Sync</li> <li>• Node is not reachable</li> <li>• Replication disabled</li> </ul> |
| <b>Conditions</b>         | This issue occurs when the primary and secondary Cisco ISE nodes' database are out of sync.  |

|                        |   |
|------------------------|---|
| <b>Possible Causes</b> | <p>This issue can occur:</p> <ul style="list-style-type: none"> <li>• When the database sync has failed because of change in system time backwards or any interruption during database sync.</li> <li>• When the node is not reachable.</li> <li>• When the certificate has expired.</li> <li>• When the secondary node is down for more than six hours.</li> </ul>   |
| <b>Resolutions</b>     | <p>You can do the following:</p> <ul style="list-style-type: none"> <li>• For out of sync issues, which most likely are due to time changes or NTP sync issues, you must correct the system time and perform a manual sync up through the UI.</li> <li>• For certificate expiry issues, you must install a valid certificate and perform a manual sync up through the UI.</li> <li>• For a node that has been down for more than six hours, you must restart the node, check for connectivity issues, and perform a manual sync up through the UI.</li> </ul> |

## External Authentication Sources

This section contains the following topics:

- [User Authentication Failed, page 14](#)
- [Missing User for RADIUS-Server Test Username in Cisco ISE Identities, page 15](#)
- [Connectivity Issues Between the Network Access Device \(Switch\) and Cisco ISE, page 15](#)
- [Active Directory Disconnected, page 16](#)
- [Cisco ISE Node Not Authenticating with Active Directory, page 16](#)
- [RADIUS Server Error Message Entries Appearing in Cisco ISE, page 16](#)
- [RADIUS Server Connectivity Issues \(No Error Message Entries Appearing in Cisco ISE\), page 17](#)

## User Authentication Failed

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | Authentications report failure reason: “Authentication failed: 22040 Wrong password or invalid shared secret”  |
| <b>Conditions</b>        | <p>Click the magnifying glass icon in Authentications to view the steps in the authentication report that should display a brief series of messages as follows:</p> <ul style="list-style-type: none"> <li>• 24210 Looking up User in Internal Users IDStore - test-radius</li> <li>• 24212 Found User in Internal Users IDStore</li> <li>• 22040 Wrong password or invalid shared secret</li> </ul> |

|                        |   |
|------------------------|---|
| <b>Possible Causes</b> | The user or device may not be supplying the correct credentials or RADIUS key to match with the external authentication source.   |
| <b>Resolution</b>      | Verify that the user credentials that are entered on the client machine are correct, and verify that the RADIUS server shared secret is correctly configured in both the NAD and Cisco ISE (they should be the same). |

## Missing User for RADIUS-Server Test Username in Cisco ISE Identities

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The administrator notices one or more Authentications report failure messages like “Authentication failed: 22056 Subject not found in the applicable identity store(s)” for a given user ID.  |
| <b>Conditions</b>        | Click the magnifying glass icon in Authentications to view the messages in the Authentication Report. You should see a short series of entries like the following: <ul style="list-style-type: none"> <li>• 24210 Looking up User in Internal Users IDStore - test-radius</li> <li>• 24216 The user is not found in the internal users identity store</li> <li>• 22056 Subject not found in the applicable identity store(s)</li> </ul> |
| <b>Possible Causes</b>   | This message appears any time an authentication fails. In all cases, it is because the user is unknown to Cisco ISE. The subject could be a guest user who has not been added to the local database, a new employee who has not yet been appropriately provisioned in the network, or even a hacker.<br><br>In addition, it is possible that the administrator did not configure the user ID in Cisco ISE.                              |
| <b>Resolution</b>        | Check the local and external identity sources to verify whether the user ID exists, and if it does, ensure that both Cisco ISE and the associated access switch are configured to accept that user.   |

## Connectivity Issues Between the Network Access Device (Switch) and Cisco ISE

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | Authentications report failure reason: “Authentication failed: 22040 Wrong password or invalid shared secret”  |
| <b>Conditions</b>        | Click the magnifying glass icon in Authentications to display authentication report entries like the following: <ul style="list-style-type: none"> <li>• 24210 Looking up User in Internal Users IDStore - test-radius</li> <li>• 24212 Found User in Internal Users IDStore</li> <li>• 22040 Wrong password or invalid shared secret</li> </ul> |
| <b>Possible Causes</b>   | The network administrator may not have specified the correct password to enable the switch (or other NAD) to authenticate with Cisco ISE.  |
| <b>Resolution</b>        | Verify that the password that is configured on the NAD is correct to authenticate with Cisco ISE.  |

## Active Directory Disconnected

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | The connection between Cisco ISE and the Active Directory server has been terminated, resulting in user authenticating failure.  |
| <b>Conditions</b>        | This issue is pertinent to any Active Directory domain topology that is connected to Cisco ISE.  |
| <b>Possible Causes</b>   | <p>This scenario is most commonly caused by clock drift due to not syncing time via NTP<sup>1</sup> on VMware.</p> <p>This issue can also arise if the Cisco ISE FQDN<sup>2</sup> changes and/or the name of the certificate imported on the client machine has changed.</p> |
| <b>Resolution</b>        | <p>Ensure that your Active Directory domain and Cisco ISE are aligned to the same NTP server source.</p> <p>Shut down or pause your Active Directory server and try to authenticate an employee to the network.</p>  |

1. NTP = Network Time Protocol

2. FQDN = fully qualified domain name

## Cisco ISE Node Not Authenticating with Active Directory

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The administrator receives “authentication failure” messages in the Authentication Failure Report on the Administration node.   |
| <b>Conditions</b>        | This issue applies to Cisco ISE policy enforcement nodes added to an existing AD domain.  |
| <b>Possible Causes</b>   | <ul style="list-style-type: none"> <li>The administrator may not have changed the AD password on after joining the Cisco ISE node to the AD domain.</li> <li>The account used to join Cisco ISE to the Active Directory domain may have an expired password.</li> </ul> |
| <b>Resolution</b>        | Change the account password that was used to join the AD domain after adding Cisco ISE to Active Directory.   |

## RADIUS Server Error Message Entries Appearing in Cisco ISE

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | <ul style="list-style-type: none"> <li>Unsuccessful RADIUS or AAA<sup>1</sup> functions on Cisco ISE</li> <li>Error messages in the Operations &gt; Authentication event entries</li> </ul> |
| <b>Conditions</b>        | This scenario can become an issue in a system where Cisco ISE is configured to perform user authentication via an external identity source on the network.                                  |



|                        |   |
|------------------------|---|
| <b>Possible Causes</b> | <p>The following are possible causes for losing connectivity with the external identity source:</p> <ul style="list-style-type: none"> <li>• Subject not found in the applicable identity source</li> <li>• Wrong password or invalid shared secret</li> <li>• Could not locate network device or AAA client</li> </ul>   |
| <b>Resolution</b>      | <p>Check the Cisco ISE dashboard (<b>Operations &gt; Authentications</b>) for any indication regarding the nature of RADIUS communication loss. (Look for instances of your specified RADIUS usernames and scan the system messages that are associated with any error message entries.)</p> <p>Log into the Cisco ISE CLI<sup>2</sup> and enter the following command to produce RADIUS attribute output that may aid in debugging connection issues:</p> <p><b>test aaa group radius &lt;username&gt; &lt;password&gt; new-code</b></p> <p>If this test command is successful, you should see the following attributes:</p> <ul style="list-style-type: none"> <li>• Connect port</li> <li>• Connect NAD IP address</li> <li>• Connect Policy Service node IP address</li> <li>• Correct server key</li> <li>• Recognized username or password</li> <li>• Connectivity between the NAD and Policy Service node</li> </ul> <p>You can also use this command to help narrow the focus of the potential problem with RADIUS communication by deliberately specifying incorrect parameter values in the command line and then returning to the administrator dashboard (Operations &gt; Authentications) to view the type and frequency of error message entries that result from the incorrect command line. For example, to test whether or not user credentials may be the source of the problem, enter a username and or password that you <i>know</i> is incorrect, and then go look for error message entries that are pertinent to that username in the Operations &gt; Authentications page to see what Cisco ISE is reporting.)</p> <p><b>Note</b> This command does not validate whether or not the NAD is configured to use RADIUS, nor does it verify whether the NAD is configured to use the new AAA model.</p> |

1. AAA = authentication, authorization, and accounting

2. CLI = command-line interface

## RADIUS Server Connectivity Issues (No Error Message Entries Appearing in Cisco ISE)

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | <ul style="list-style-type: none"> <li>• Unsuccessful RADIUS or AAA functions in Cisco ISE</li> <li>• The NAD is unable to ping the Policy Service node</li> </ul> |
| <b>Conditions</b>        | <p>This scenario is applicable in a system in which Cisco ISE is configured to perform user authentication via an external RADIUS server on the network.</p>       |

|                        |   |
|------------------------|---|
| <b>Possible Causes</b> | <p>The following are possible causes for losing connectivity with the RADIUS server:</p> <ul style="list-style-type: none"> <li>• Network connectivity issue or issues</li> <li>• Bad server IP address</li> <li>• Bad server port</li> </ul>   |
| <b>Resolution</b>      | <p>If you are unable to ping the Policy Service node from the NAD, try any or all of these possible solutions:</p> <ul style="list-style-type: none"> <li>• Verify the NAD IP address</li> <li>• Try using Traceroute and other appropriate “sniffer”-type tools to isolate the source of disconnection. (In a production environment, be cautious of overusing debug functions, because they commonly consume large amounts of available bandwidth and CPU, which can impact normal network operation.)</li> </ul> <p>Check the Cisco ISE “TCP Dump” report for the given Policy Service node to see if there are any indications.</p> |

## Client Access, Authentication, and Authorization

This section contains the following topics:

- [Cannot Authenticate on Profiled Endpoint, page 19](#)
- [Quarantined Endpoints Do Not Renew Authentication Following Policy Change, page 20](#)
- [Endpoint Does Not Align to the Expected Profile, page 21](#)
- [User is Unable to Authenticate Against the Local Cisco ISE Identity Store, page 22](#)
- [Sponsor Users Cannot Log in to Sponsor Portal, page 22](#)
- [Certificate-Based User Authentication via Supplicant Failing, page 23](#)
- [802.1X Authentication Fails, page 24](#)
- [Users Are Reporting Unexpected Network Access Issues, page 24](#)
- [Authorization Policy Not Working, page 25](#)
- [Switch is Dropping Active AAA Sessions, page 26](#)
- [URL Redirection on Client Machine Fails, page 27](#)
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- [Agent Login Dialog Not Appearing, page 30](#)
- [Agent Fails to Initiate Posture Assessment, page 30](#)
- [Agent Displays “Temporary Access”, page 31](#)
- [Cisco ISE Does Not Issue CoA Following Authentication, page 31](#)
- [Non-Guest Users Do Not Go Through Guest Flow for Network Access, page 32](#)
- [Guest Devices Keep Losing Network Access, page 32](#)

## Cannot Authenticate on Profiled Endpoint

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | <ul style="list-style-type: none"> <li>• The IP phone was profiled but was not authorized properly. Therefore, it was not assigned to the voice VLAN.</li> <li>• The IP phone was profiled and authorized properly, but was not assigned to the correct voice VLAN.</li> <li>• The endpoint has been successfully profiled in Cisco ISE, but user authentication fails.</li> </ul>  |
| <b>Conditions</b>        | <p>The administrator will see the Authentications Log Error message: “22056 Subject not found in the applicable identity store(s)” containing the following entries:</p> <ul style="list-style-type: none"> <li>• 24210 Looking up User in Internal Users IDStore - 00:03:E3:2A:21:4A</li> <li>• 24216 The user is not found in the internal users identity store</li> <li>• 22056 Subject not found in the applicable identity store(s)</li> </ul>   |
| <b>Possible Causes</b>   | <ul style="list-style-type: none"> <li>• This could be either a MAB<sup>1</sup> or 802.1X authentication issue.</li> <li>• The authorization profile could be missing the Cisco av-pair=”device-traffic-class=voice” attribute. As a result, the switch does not recognize the traffic on the voice VLAN.</li> <li>• The administrator did not add the endpoint as static identity, or did not allow an unregistered endpoint to pass (create a policy rule to “Continue/Continue/Continue” upon failure).</li> </ul> |

|                   |  |
|-------------------|--|
| <b>Resolution</b> | <ul style="list-style-type: none"> <li>• Verify that the Authorization Policy is framed properly for groups and conditions, and check to see whether the IP phone is profiled as an “IP phone” or as a “Cisco-device.”</li> <li>• Verify the switch port configuration for multidomain and voice VLAN configuration.</li> <li>• Add the continue/continue/continue to allow the endpoint to pass: <ul style="list-style-type: none"> <li>a. Choose <b>Policy &gt; Policy Elements &gt; Configurations</b> and choose <b>Allowed Protocol Services</b> to create a Protocol Policy. MAC authentications use PAP<sup>2</sup>/ASCII and EAP-MD5<sup>3</sup> protocols. Enable the following MAB_Protocols settings: <ul style="list-style-type: none"> <li>– Process Host Lookup</li> <li>– PAP/ASCII</li> <li>– Detect PAP as Host Lookup</li> <li>– EAP-MD5</li> <li>– Detect EAP-MD5 as Host Lookup</li> </ul> </li> <li>b. From the main menu, choose <b>Policy &gt; Authentication</b>.</li> <li>c. Change the authentication method from Simple to Rule-Based</li> <li>d. Use the action icon to create new Authentication Method entries for MAB: <ul style="list-style-type: none"> <li>– Name: MAB</li> <li>– Condition: IF MAB RADIUS:Service-Type == Call Check</li> <li>– Protocols: allow protocols MAB_Protocols and use</li> <li>– Identity Source: Internal</li> <li>– Hosts: Continue/Continue/Continue</li> </ul> </li> </ul> </li> </ul> |
|-------------------|--|

1. MAB = MAC authentication bypass

2. PAP = Password Authentication Protocol

3. EAP = Extensible Authentication Protocol; MD5 = Message Digest 5

## Quarantined Endpoints Do Not Renew Authentication Following Policy Change

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Authentication has failed following policy change or additional identity and no reauthentication is taking place. The endpoint in question remains unable to connect or authentication fails. |
| <b>Conditions</b>        | This issue often occurs on client machines that are failing posture assessment per the posture policy that is assigned to the user role.  |

|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | The authentication timer may not be set correctly on the client machine, or the authentication interval may not be set correctly on the switch.  |
| <b>Resolution</b>      | <p>There are several possible resolutions for this issue:</p> <ol style="list-style-type: none"> <li>1. Check the Session Status Summary report in Cisco ISE for the specified NAD or switch, and ensure that the interface has the appropriate authentication interval configured.</li> <li>2. Enter “show running configuration” on the NAD/switch and ensure that the interface is configured with an appropriate “authentication timer restart” setting. (For example, “authentication timer restart 15,” and “authentication timer reauthenticate 15.”)</li> <li>3. Try entering “interface shutdown” and “no shutdown” to bounce the port on the NAD/switch and force reauthentication following a potential configuration change in Cisco ISE.</li> </ol> |

**Note**

Because CoA requires a MAC address or session ID, we recommend that you do not bounce the port that is shown in the Network Device SNMP report.

## Endpoint Does Not Align to the Expected Profile

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | An IP phone is plugged in and the profile appears as a “Cisco-Device.”   |
| <b>Conditions</b>        | Launch the Endpoint Profiler/Endpoint Profiler Summary report and click <b>Details</b> for the MAC address that corresponds to the profiled endpoint in question.  |
| <b>Possible Causes</b>   | <ul style="list-style-type: none"> <li>• There could be an SNMP configuration issue on Cisco ISE, the switch, or both.</li> <li>• The profile is likely not configured correctly, or contains the MAC address of the endpoint already.</li> </ul>  |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>• Verify the SNMP version configuration on both Cisco ISE and the switch for SNMP trap and SNMP server settings.</li> <li>• The Profiler profile needs to be updated. Navigate to <b>Administration &gt; Identity Management &gt; Identities &gt; Endpoints</b>, select the endpoint by MAC address and click <b>Edit</b>.</li> </ul> |

## User is Unable to Authenticate Against the Local Cisco ISE Identity Store

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | User cannot authenticate from supplicant.  |
| <b>Conditions</b>        | <p>Authentications report failure reason: "Authentication failed: 22056 Subject not found in the applicable identity store(s)"</p> <p>Click the magnifying glass in Authentications to launch the Authentication report that displays the following:</p> <ul style="list-style-type: none"> <li>• 24210 Looking up User in Internal Users IDStore - ACSXP-SUPP2\Administrator</li> <li>• 24216 The user is not found in the internal users identity store</li> </ul> |
| <b>Possible Causes</b>   | The supplicant is providing a name and password to authenticate against the local Cisco ISE user database, but those credentials are not configured in the local database.   |
| <b>Resolution</b>        | Verify that the user credentials are configured in the Cisco ISE local identity store.   |

## Sponsor Users Cannot Log in to Sponsor Portal

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | <p>Sponsor users (internal or AD) are unable to log in to the sponsor portal. The following error message appears:</p> <p>"Invalid username or password. Please try again."</p>  |
| <b>Conditions</b>        | This issue occurs when a sponsor user tries to log in to the sponsor portal.   |
| <b>Possible Causes</b>   | <p>The possible causes are:</p> <ul style="list-style-type: none"> <li>• User is not valid, which means, the user record is not present in the database (internal or AD) or the user has entered invalid credentials.</li> <li>• Any sponsor group policy that is created by the administrator is disabled.</li> </ul> |
| <b>Resolution</b>        | Enable the sponsor group policies.   |

## Certificate-Based User Authentication via Supplicant Failing

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | User authentication is failing on the client machine, and the user is receiving a “RADIUS Access-Reject” form of message.   |
| <b>Conditions</b>        | <p>(This issue occurs with authentication protocols that require certificate validation.)</p> <p>Possible Authentications report failure reasons:</p> <ul style="list-style-type: none"> <li>• “Authentication failed: 11514 Unexpectedly received empty TLS message; treating as a rejection by the client”</li> <li>• “Authentication failed: 12153 EAP-FAST failed SSL/TLS handshake because the client rejected the Cisco ISE local-certificate”</li> </ul> <p>Click the magnifying glass icon from Authentications to display the following output in the Authentication Report:</p> <ul style="list-style-type: none"> <li>• 12305 Prepared EAP-Request with another PEAP challenge</li> <li>• 11006 Returned RADIUS Access-Challenge</li> <li>• 11001 Received RADIUS Access-Request</li> <li>• 11018 RADIUS is reusing an existing session</li> <li>• 12304 Extracted EAP-Response containing PEAP challenge-response</li> <li>• 11514 Unexpectedly received empty TLS message; treating as a rejection by the client</li> <li>• 12512 Treat the unexpected TLS acknowledge message as a rejection from the client</li> <li>• 11504 Prepared EAP-Failure</li> <li>• 11003 Returned RADIUS Access-Reject</li> <li>• 11006 Returned RADIUS Access-Challenge</li> <li>• 11001 Received RADIUS Access-Request</li> <li>• 11018 RADIUS is re-using an existing session</li> <li>• 12104 Extracted EAP-Response containing EAP-FAST challenge-response</li> <li>• 12815 Extracted TLS Alert message</li> <li>• 12153 EAP-FAST failed SSL/TLS handshake because the client rejected the Cisco ISE local-certificate</li> <li>• 11504 Prepared EAP-Failure</li> <li>• 11003 Returned RADIUS Access-Reject</li> </ul> <p><b>Note</b> This is an indication that the client does not have or does not trust the Cisco ISE certificates.</p> |
| <b>Possible Causes</b>   | <p>The supplicant or client machine is not accepting the certificate from Cisco ISE.</p> <p>The client machine is configured to validate the server certificate, but is not configured to trust the Cisco ISE certificate.</p>  |
| <b>Resolution</b>        | The client machine must accept the Cisco ISE certificate to enable authentication.  |

## 802.1X Authentication Fails

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | The user logging in via the client machine sees an error message from the supplicant that indicates that 802.1X authentication has failed.   |
| <b>Conditions</b>        | Troubleshooting Steps: <ol style="list-style-type: none"> <li>1. Choose <b>Operations &gt; Authentications</b>.</li> <li>2. Scroll over and look for the “Failure reason.”</li> </ol>  |
| <b>Possible Causes</b>   | Look for the details of the failed authentication record and click the failure reason link under <b>Details &gt; Resolution for the Authentication</b> . The failure reason should be listed.  |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>• Correct the failure reason per the findings that are defined in the Possible Causes.</li> <li>• Click on details icon of any active sessions, which takes you to the <b>AAA Protocol &gt; RADIUS Authentication Details</b> report where you can find the <b>Authentication Summary &gt; Radius Status</b> field stating failure reasons along with message code hyperlinks.</li> </ul> |



### Note

If authentication fails and there are no Authentications entries to search (assuming monitoring and troubleshooting is running properly), complete the following steps:

1. Ensure that the RADIUS server configuration on the switch is pointing to Cisco ISE.
2. Check network connectivity between the switch and Cisco ISE.
3. Verify that the Policy Service node is running on Cisco ISE to ensure that it can receive RADIUS requests.

## Users Are Reporting Unexpected Network Access Issues

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | <p>Several symptoms for this issue could be taking place, including the following:</p> <ul style="list-style-type: none"> <li>• Users are being asked to download an agent other than what they expect.</li> <li>• Users who should have full network access are only allowed limited network access.</li> <li>• Although users are passing posture assessment, they are not getting the appropriate level of network access.</li> <li>• Users who should be allowed into the corporate (Access) VLAN are being left in the Authentication VLAN following authentication.</li> </ul> |
| <b>Conditions</b>        | Users are successfully authenticated, but are unable to get network access.  |



|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | <ul style="list-style-type: none"> <li>• The administrator may not have specified the correct authorization profile.</li> <li>• The administrator did not define the appropriate policy conditions for the user access level.</li> <li>• The authorization profile, itself, might not have been framed properly.</li> </ul>  |
| <b>Resolution</b>      | <p>Ensure that the Identity Group Conditions are defined appropriately to support the authorization profile that is required for the user groups in question.</p> <ol style="list-style-type: none"> <li>1. Choose <b>Operations &gt; Authentication</b>.</li> <li>2. Look for the identity group to which the user belongs.</li> <li>3. Look at the authorization profile that is selected for that identity group.</li> <li>4. Choose <b>Policy &gt; Authorization</b> and verify that the correct rule is matching for that identity group.</li> <li>5. If not, debug for the reason why the correct authorization policy is not matching.</li> </ol> |

## Authorization Policy Not Working

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The authorization policy that is specified by the administrator is the correct one, but the endpoint is not receiving the configured VLAN IP. |
| <b>Conditions</b>        | This issue applies to standard user authorization sessions in a wired environment.  |

|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | The preauthorization ACL could be blocking DHCP traffic.   |
| <b>Resolution</b>      | <ul style="list-style-type: none"> <li>• Ensure that the Cisco IOS release on the switch is equal to or more recent than the Cisco IOS Release 12.2.(53)SE.</li> <li>• Ensure that the identity group conditions are defined appropriately.</li> <li>• Check for the client machine port VLAN by using the <b>show vlan</b> command on the access switch. If the port is not showing the correct authorization profile VLAN, ensure that VLAN enforcement is appropriate to reach out to the DHCP server. If the VLAN is correct, the preauthorization ACL could be blocking DHCP traffic. Ensure that the preauthorization DACL is as follows: <pre> remark Allow DHCP permit udp any eq bootpc any eq bootps remark Allow DNS permit udp any any eq domain remark ping permit icmp any any permit tcp any host 80.0.80.2 eq 443 --&gt; This is for URL redirect permit tcp any host 80.0.80.2 eq www permit tcp any host 80.0.80.2 eq 8443 --&gt; This is for guest portal port permit tcp any host 80.0.80.2 eq 8905 --&gt; This is for posture communication between NAC agent and ISE (Swiss ports) permit udp any host 80.0.80.2 eq 8905 --&gt; This is for posture communication between NAC agent and ISE (Swiss ports) permit udp any host 80.0.80.2 eq 8906 --&gt; This is for posture communication between NAC agent and ISE (Swiss ports) deny ip any any </pre> </li> <li>• Ensure the session is created on the switch by entering the <b>show epm session summary</b> command. If the IP address of the session shown is “not available,” ensure that the following configuration lines appear on the switch: <pre> ip dhcp snooping vlan 30-100 ip device tracking </pre> </li> </ul> |

## Switch is Dropping Active AAA Sessions

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | 802.1X and MAB authentication and authorization are successful, but the switch is dropping active sessions and the <b>epm session summary</b> command does not display any active sessions. |
| <b>Conditions</b>        | This applies to user sessions that have logged in successfully and are then being terminated by the switch.   |

|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | <ul style="list-style-type: none"> <li>• The preauthentication ACL (and the subsequent DACL enforcement from Cisco ISE) on the NAD may not be configured correctly for that session.</li> <li>• The preauthentication ACL is configured and the DACL is downloaded from Cisco ISE, but the switch brings the session down.</li> <li>• Cisco ISE may be enforcing a preposture VLAN assignment rather than the (correct) postposture VLAN, which can also bring down the session.</li> </ul>  |
| <b>Resolution</b>      | <ul style="list-style-type: none"> <li>• Ensure the Cisco IOS release on the switch is equal to or more recent than Cisco IOS Release 12.2.(53)SE.</li> <li>• Check to see whether or not the DACL name in Cisco ISE contains a blank space (possibly around or near a hyphen "-"). There should be no space in the DACL name. Then ensure that the DACL syntax is correct and that it contains no extra spaces.</li> <li>• Ensure that the following configuration exists on the switch to interpret the DACL properly (if not enabled, the switch may terminate the session): <pre>radius-server attribute 6 on-for-login-auth radius-server attribute 8 include-in-access-req radius-server attribute 25 access-request include radius-server vsa send accounting radius-server vsa send authentication</pre> </li> </ul> |

## URL Redirection on Client Machine Fails

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The URL redirection page in the client machine's browser does not correctly guide the end user to the appropriate URL.                                      |
| <b>Conditions</b>        | This issue is most applicable to 802.1X authentication sessions that require URL redirection and Guest Centralized Web Authentication (CWA) login sessions. |
| <b>Possible Causes</b>   | (There are multiple causes for this issue. See the <b>Resolutions</b> descriptions that follow for explanation.)  |

**Resolution**

- The two Cisco av-pairs that are configured on the authorization profile should exactly match the following example. (Note: Do *not* replace the “IP” with the actual Cisco ISE IP address.)
  - url-redirect=<https://ip:8443/guestportal/gateway?...lue&action=cpp>
  - url-redirect-acl=ACL-WEBAUTH-REDIRECT (ensure that this ACL is also defined on the access switch)
- Ensure that the URL redirection portion of the ACL have been applied to the session by entering the **show epm session ip** <session IP> command on the switch. (Where the session IP is the IP address that is passed to the client machine by the DHCP server.)

```
Admission feature : DOT1X
AAA Policies : #ACSACL#-IP-Limitedaccess-4cb2976e
URL Redirect ACL : ACL-WEBAUTH-REDIRECT
URL Redirect :
https://node250.cisco.com:8443/guestportal/gateway?sessionId=0A000A720000A45A2444BFC2&action=cpp
```

- Ensure that the preposture assessment DACL that is enforced from the Cisco ISE authorization profile contains the following command lines:

```
remark Allow DHCP
permit udp any eq bootpc any eq bootps
remark Allow DNS
permit udp any any eq domain
remark ping
permit icmp any any
permit tcp any host 80.0.80.2 eq 443 --> This is for URL redirect
permit tcp any host 80.0.80.2 eq www --> Provides access to internet
permit tcp any host 80.0.80.2 eq 8443 --> This is for guest portal
port
permit tcp any host 80.0.80.2 eq 8905 --> This is for posture
communication between NAC agent and ISE (Swiss ports)
permit udp any host 80.0.80.2 eq 8905 --> This is for posture
communication between NAC agent and ISE (Swiss ports)
permit udp any host 80.0.80.2 eq 8906 --> This is for posture
communication between NAC agent and ISE (Swiss ports)
deny ip any any
```

**Note** Ensure that the URL Redirect has the proper Cisco ISE FQDN.

|                                   |   |
|-----------------------------------|---|
| <b>Resolution<br/>(continued)</b> | <ul style="list-style-type: none"> <li>Ensure that the ACL with the name “ACL-WEBAUTH_REDIRECT” exists on the switch as follows: <pre>ip access-list extended ACL-WEBAUTH-REDIRECT deny ip any host 80.80.80.2 permit tcp any any eq www permit tcp any any eq 443 permit tcp any any eq 8443</pre> </li> <li>Ensure that the HTTP and HTTPS servers are running on the switch: <pre>ip http server ip http secure-server</pre> </li> <li>Ensure that, if the client machine employs any kind of personal firewall, it is disabled.</li> <li>Ensure that the client machine browser is not configured to use any proxies.</li> <li>Verify connectivity between the client machine and the Cisco ISE IP address.</li> <li>If Cisco ISE is deployed in a distributed environment, make sure that the client machines are aware of the Policy Service node FQDN.</li> <li>Ensure that the Cisco ISE FQDN is resolved and reachable from the client machine.</li> </ul> |
|-----------------------------------|---|

## Agent Download Issues on Client Machine

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | Client machine browser displays a “no policy matched” error message after user authentication and authorization.   |
| <b>Conditions</b>        | This issue applies to user sessions during the client provisioning phase of authentication.  |
| <b>Possible Causes</b>   | The client provisioning resource policy could be missing required settings.  |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>Ensure that a client provisioning policy exists in Cisco ISE. If yes, verify the policy identity group, conditions, and type of agent(s) defined in the policy. (Also ensure whether or not there is any agent profile configured under Policy &gt; Policy Elements &gt; Results &gt; Client Provisioning &gt; Resources &gt; Add &gt; ISE Posture Agent Profile, even a profile with all default values.)</li> <li>Try reauthenticating the client machine by bouncing the port on the access switch.</li> </ul> |



### Note

Remember that the client provisioning agent installer download requires the following:

- The user must allow the ActiveX installer in the browser session the first time an agent is installed on the client machine. (The client provisioning download page prompts for this.)
- The client machine must have Internet access.

## Agent Login Dialog Not Appearing

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The agent login dialog box does not appear to the user following client provisioning.   |
| <b>Conditions</b>        | This issue can generally take place during the posture assessment phase of any user authentication session.   |
| <b>Possible Causes</b>   | There are multiple possible causes for this type of issue. See the following <b>Resolution</b> descriptions for details.  |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>Ensure that the agent is running on the client machine.</li> <li>Ensure that the Cisco IOS release on the switch is equal to or more recent than Cisco IOS Release 12.2.(53)SE.</li> <li>Ensure that the discovery host address on the Cisco NAC agent or Mac OS X agent is pointing to the Cisco ISE FQDN. (Right-click the <b>NAC agent</b> icon, choose <b>Properties</b>, and check the discovery host.)</li> <li>Ensure that the access switch allows Swiss communication between Cisco ISE and the end client machine. Limited access ACL applied for the session should allow Swiss ports: <pre> remark Allow DHCP permit udp any eq bootpc any eq bootps remark Allow DNS permit udp any any eq domain remark ping permit icmp any any permit tcp any host 80.0.80.2 eq 443 --&gt; This is for URL redirect permit tcp any host 80.0.80.2 eq www --&gt; Provides access to internet permit tcp any host 80.0.80.2 eq 8443 --&gt; This is for guest portal port permit tcp any host 80.0.80.2 eq 8905 --&gt; This is for posture communication between NAC agent and ISE (Swiss ports) permit udp any host 80.0.80.2 eq 8905 --&gt; This is for posture communication between NAC agent and ISE (Swiss ports) deny ip any any </pre> </li> <li>If the agent login dialog still does not appear, it could be a certificate issue. Ensure that the certificate that is used for Swiss communication on the end client is in the Cisco ISE certificate trusted list.</li> <li>Ensure that the default gateway is reachable from the client machine.</li> </ul> |

## Agent Fails to Initiate Posture Assessment

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | The user is presented with a “Clean access server not available” message. |
| <b>Conditions</b>        | This issue applies to any agent authentication session from Cisco ISE.    |

|                        |  |
|------------------------|--|
| <b>Possible Causes</b> | This error could mean that either the session has terminated or Cisco ISE is no longer reachable on the network.   |
| <b>Resolution</b>      | <ul style="list-style-type: none"> <li>• The user can try to ping the default gateway or the RADIUS server IP address or FQDN supplied by the network administrator.</li> <li>• The user can try to log into the network again.</li> <li>• The administrator can check network access attributes for the user (like the assigned VLAN, ACLs, routing, execute the <b>nslookup</b> command on the client, client machine DNS connection, and so on).</li> </ul> |

## Agent Displays “Temporary Access”

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | A client machine is granted “Temporary Access” following login and authentication, but administrator and user expect full network access.  |
| <b>Conditions</b>        | This issue is applicable to any client machine login session using an agent to connect.  |
| <b>Possible Causes</b>   | <p>If the NAC Agent is running on the client and:</p> <ul style="list-style-type: none"> <li>• The interface on the client machine goes down</li> <li>• The session is terminated</li> </ul> |
| <b>Resolution</b>        | The user must try to verify network connectivity and then try to log in again (and pass through posture assessment, as well) to attempt to reestablish the connection.                       |

## Cisco ISE Does Not Issue CoA Following Authentication

|                          |  |
|--------------------------|--|
| <b>Symptoms or Issue</b> | CoA is not issued following client machine login and authentication.   |
| <b>Conditions</b>        | This specific issue is only applicable in a wired environment where CoA is required on the client machine to complete authentication.  |
| <b>Possible Causes</b>   | The access switch may not have the required configuration to support CoA for the client machine.   |
| <b>Resolution</b>        | <ul style="list-style-type: none"> <li>• Ensure that the Cisco IOS release on the switch is equal to or more recent than Cisco IOS Release 12.2.(53)SE.</li> <li>• Ensure that the switch configuration features the following commands necessary to enable CoA: <pre>aaa server radius dynamic-author client 80.0.80.2 server-key cisco456 --&gt; ISE ip. server-key cisco456</pre> </li> </ul> |

## Non-Guest Users Do Not Go Through Guest Flow for Network Access

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Active Directory users do not go through the guest flow for network access.   |
| <b>Conditions</b>        | This issue is specific only to non-guest users when the self-provisioning flow is enabled.  |
| <b>Possible Causes</b>   | Active Directory, LDAP, and internal Cisco ISE users are considered to be non-guest users. Thus, when you enable the self-provisioning flow for employees (to support personal devices, or BYOD), they are directed to that flow rather than the guest flow for network access.   |
| <b>Resolution</b>        | If you prefer to have non-guest users to access the network using the guest flow, you must disable the self-provisioning flow by choosing <b>Administration &gt; Web Portal Management &gt; Settings &gt; Guest &gt; Multi-Portal Configurations &gt; Operations</b> and uncheck <b>Enable Self-Provisioning Flow</b> . |

## Guest Devices Keep Losing Network Access

|                          |   |
|--------------------------|---|
| <b>Symptoms or Issue</b> | Guests repeatedly lose network connectivity on device requiring them to reconnect.  |
| <b>Conditions</b>        | This issue is specific the configuration scenario in which you have set the Guest portal policy to limit guests to one active network session, and guest users: <ul style="list-style-type: none"> <li>• have connected more than one device to the network</li> <li>• are activated guests.</li> </ul> |
| <b>Possible Causes</b>   | The user credentials in the supplicant are cached on the devices, allowing the devices to maintain network connectivity. However, because the guest is limited to only one network session, the devices are continually connecting on one device and disconnecting on the other device.                 |
| <b>Resolution</b>        | Guests should force the unused device to forget the network.  |



# Error Messages

This section contains the following topics:

- [ACTIVE\\_DIRECTORY\\_USER\\_INVALID\\_CREDENTIALS](#), page 33
- [ACTIVE\\_DIRECTORY\\_USER\\_AUTH\\_FAILED](#), page 33
- [ACTIVE\\_DIRECTORY\\_USER\\_PASSWORD\\_EXPIRED](#), page 34
- [ACTIVE\\_DIRECTORY\\_USER\\_WRONG\\_PASSWORD](#), page 34
- [ACTIVE\\_DIRECTORY\\_USER\\_ACCOUNT\\_DISABLED](#), page 34
- [ACTIVE\\_DIRECTORY\\_USER\\_RESTRICTED\\_LOGON\\_HOURS](#), page 34
- [ACTIVE\\_DIRECTORY\\_USER\\_NON\\_COMPLIANT\\_PASSWORD](#), page 34
- [ACTIVE\\_DIRECTORY\\_USER\\_UNKNOWN\\_DOMAIN](#), page 35
- [ACTIVE\\_DIRECTORY\\_USER\\_ACCOUNT\\_EXPIRED](#), page 35
- [ACTIVE\\_DIRECTORY\\_USER\\_ACCOUNT\\_LOCKED\\_OUT](#), page 35
- [ACTIVE\\_DIRECTORY\\_GROUP\\_RETRIEVAL\\_FAILED](#), page 35
- [ACTIVE\\_DIRECTORY\\_MACHINE\\_AUTHENTICATION\\_DISABLED](#), page 35
- [ACTIVE\\_DIRECTORY\\_ATTRIBUTE\\_RETRIEVAL\\_FAILED](#), page 36
- [ACTIVE\\_DIRECTORY\\_PASSWORD\\_CHANGE\\_DISABLED](#), page 36
- [ACTIVE\\_DIRECTORY\\_USER\\_UNKNOWN](#), page 36
- [ACTIVE\\_DIRECTORY\\_CONNECTION\\_FAILED](#), page 36
- [ACTIVE\\_DIRECTORY\\_BAD\\_PARAMETER](#), page 36
- [ACTIVE\\_DIRECTORY\\_TIMEOUT](#), page 36

## ACTIVE\_DIRECTORY\_USER\_INVALID\_CREDENTIALS

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message indicates that the user's credentials are invalid.  |
| <b>Resolution</b>  | Check if the Active Directory user account and credentials that are used to connect to the Active Directory domain are correct. |

## ACTIVE\_DIRECTORY\_USER\_AUTH\_FAILED

|                    |  |
|--------------------|--|
| <b>Description</b> | This Authentication Failure message indicates that the user authentication has failed. You will see this message when the user or machine password is not found in Active Directory. |
| <b>Resolution</b>  | Check if the Active Directory user account and credentials that are used to connect to the Active Directory domain are correct.  |

## ACTIVE\_DIRECTORY\_USER\_PASSWORD\_EXPIRED

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears when the user's password has expired.   |
| <b>Resolution</b>  | If the Active Directory user account is valid, then reset the account in Active Directory. If the user account has expired, but if it is still needed, then renew it. If the user account has expired and is no longer valid, investigate the reasons for the attempts. |

## ACTIVE\_DIRECTORY\_USER\_WRONG\_PASSWORD

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears when the user has entered an incorrect password.                                    |
| <b>Resolution</b>  | Check if the Active Directory user account and credentials that are used to connect to the Active Directory domain are correct. |

## ACTIVE\_DIRECTORY\_USER\_ACCOUNT\_DISABLED

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears when the user account is disabled in Active Directory.  |
| <b>Resolution</b>  | If the Active Directory user account is valid, then reset the account in Active Directory. If the user account has expired, but if it is still needed, then renew it. If the user account has expired and is no longer valid, investigate the reasons for the attempts. |

## ACTIVE\_DIRECTORY\_USER\_RESTRICTED\_LOGON\_HOURS

|                    |  |
|--------------------|--|
| <b>Description</b> | This Authentication Failure message appears when the user logs in during restricted hours.   |
| <b>Resolution</b>  | If the user access is valid, then update the user access policy in Active Directory. If the user access is invalid (restricted at this time), then investigate the reasons for the attempts. |

## ACTIVE\_DIRECTORY\_USER\_NON\_COMPLIANT\_PASSWORD

|                    |  |
|--------------------|--|
| <b>Description</b> | This Authentication Failure message appears if the user has a password that is not compliant with the password policy. |
| <b>Resolution</b>  | Reset the password in Active Directory such that it is compliant with the password policy in Active Directory.         |

## ACTIVE\_DIRECTORY\_USER\_UNKNOWN\_DOMAIN

|                    |  |
|--------------------|--|
| <b>Description</b> | This Authentication Failure message appears if Active Directory is unable to locate the specified domain.                    |
| <b>Resolution</b>  | Check the configuration of Active Directory in the Admin portal and the DNS <sup>1</sup> configuration in the Cisco ISE CLI. |

1. DNS = domain name service

## ACTIVE\_DIRECTORY\_USER\_ACCOUNT\_EXPIRED

|                    |  |
|--------------------|--|
| <b>Description</b> | This message appears when the user account in Active Directory has expired.  |
| <b>Resolution</b>  | If the user account has expired, but is still needed, then renew the user account. If the user account has expired and is no longer valid, investigate the reasons for the attempts. |

## ACTIVE\_DIRECTORY\_USER\_ACCOUNT\_LOCKED\_OUT

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears if the user account has been locked out.  |
| <b>Resolution</b>  | If the user attempts to log in with correct credentials, reset the user's password. Otherwise, investigate the attempts that caused the lock out. |

## ACTIVE\_DIRECTORY\_GROUP\_RETRIEVAL\_FAILED

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears if Active Directory is unable to retrieve the groups. |
| <b>Resolution</b>  | Check if the Active Directory configuration in the Admin portal is correct.                       |

## ACTIVE\_DIRECTORY\_MACHINE\_AUTHENTICATION\_DISABLED

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears if machine authentication is not enabled in Active Directory. |
| <b>Resolution</b>  | Enable Machine Authentication in Active Directory, if required.   |

## ACTIVE\_DIRECTORY\_ATTRIBUTE\_RETRIEVAL\_FAILED

|                    |   |
|--------------------|---|
| <b>Description</b> | This Authentication Failure message appears if Active Directory is unable to retrieve the attributes that you have specified. |
| <b>Resolution</b>  | Check if the Active Directory configuration in the Admin portal is correct.   |

## ACTIVE\_DIRECTORY\_PASSWORD\_CHANGE\_DISABLED

|                    |  |
|--------------------|--|
| <b>Description</b> | This Authentication Failure message appears if the password change option is disabled in Active Directory. |
| <b>Resolution</b>  | Enable Password Change in Active Directory, if required.   |

## ACTIVE\_DIRECTORY\_USER\_UNKNOWN

|                    |   |
|--------------------|---|
| <b>Description</b> | This Invalid User message appears if the user information is not found in Active Directory.   |
| <b>Resolution</b>  | Check for the origin of the invalid attempts. If it is from a valid user, ensure that the user account is configured correctly in Active Directory. |

## ACTIVE\_DIRECTORY\_CONNECTION\_FAILED

|                    |   |
|--------------------|---|
| <b>Description</b> | This External Error message appears when Cisco ISE is unable to establish a connection with Active Directory. |
| <b>Resolution</b>  | Check if the Active Directory configuration in the Admin portal is correct.                                   |

## ACTIVE\_DIRECTORY\_BAD\_PARAMETER

|                    |  |
|--------------------|--|
| <b>Description</b> | This External Error message appears when you have provided an invalid input. |
| <b>Resolution</b>  | Check if the Active Directory configuration in the Admin portal is correct.  |

## ACTIVE\_DIRECTORY\_TIMEOUT

|                    |   |
|--------------------|---|
| <b>Description</b> | This External Error message appears when a timeout event has occurred.      |
| <b>Resolution</b>  | Check if the Active Directory configuration in the Admin portal is correct. |

# Configure NADs for ISE Monitoring

To help troubleshoot failures with endpoint authentication and authorization, network access devices (NADs) can be configured to send syslog messages to the ISE Monitoring node. The logs can be correlated to authentication and authorization events and will be displayed in the details of the RADIUS authentication logs.



## Note

Sending syslog from NADs to ISE should be used for troubleshooting purposes only as this additional logging increases the load on the Monitoring node. Logging should only be enabled on specific NADs where endpoint is connected and should be disabled when the troubleshooting session is completed. If possible, it is recommended to filter the logs sent to ISE to those listed in [Syslog Messages Collected](#), page 37.

To enable a switch in your network to send syslog messages for ISE troubleshooting purposes, use the following commands.

```
epm logging
logging monitor informational
logging origin-id ip
logging source-interface <interface_id>
logging host <syslog_server_IP_address_x> transport udp port 20514
```



## Note

The origin-id ip address should be set to match source-interface IP address. The interface\_id is the interface that will send syslog messages. Syslog messages will be sourced from the IP address configured for this interface. The syslog\_server\_IP\_address should be the Primary MnT node.

### Syslog Messages Collected

The following NAD syslog messages are collected:

AP-6-AUTH\_PROXY\_AUDIT\_START  
 AP-6-AUTH\_PROXY\_AUDIT\_STOP  
 AP-1-AUTH\_PROXY\_DOS\_ATTACK  
 AP-1-AUTH\_PROXY\_RETRIES\_EXCEEDED  
 AP-1-AUTH\_PROXY\_FALLBACK\_REQ  
 AP-1-AUTH\_PROXY\_AAA\_DOWN  
 AUTHMGR-5-MACMOVE  
 AUTHMGR-5-MACREPLACE  
 AUTHMGR-5-START/SUCCESS/FAIL  
 AUTHMGR-SP-5-VLANASSIGN/VLANASSIGNERR  
 DOT1X-5-SUCCESS/FAIL  
 DOT1X\_SWITCH-5-ERR\_VLAN\_NOT\_FOUND  
 EPM-6-POLICY\_REQ  
 EPM-6-POLICY\_APP\_SUCCESS/FAILURE  
 EPM-6-IPEVENT:  
 MAB-5-SUCCESS/FAIL  
 MKA-5-SESSION\_START

MKA-5-SESSION\_STOP  
MKA-5-SESSION\_REAUTH  
MKA-5-SESSION\_UNSECURED  
MKA-5-SESSION\_SECURED  
MKA-5-KEEPALIVE\_TIMEOUT  
RADIUS-4-RADIUS\_DEAD

## Troubleshooting APIs

You can use the following troubleshooting APIs to query information from Cisco ISE that could aid in general troubleshooting processes.

- **Get Version and Type of Node (Version)**  
<https://{hostname}/ise/mnt/api/Version>
- **Get Failure Reasons Mapping (FailureReasons)**  
<https://{hostname}/ise/mnt/api/FailureReasons>
- **Get Session Authentication Status (AuthStatus)**  
<https://{hostname}/ise/mnt/api/AuthStatus/MACAddress/{mac}/{seconds}/{number of records per MAC Address}/All>
- **Get Session Accounting Status (AcctStatusTT)**  
<https://{hostname}/ise/mnt/api/AcctStatusTT/MACAddress/{mac}/{seconds}>

### Active Session List/Count APIs

#### APIs to Get Active Session Count

- **Get Active Session Count in Session Directory (ActiveCount)**  
<https://{mnt-node}/ise/mnt/api/Session/ActiveCount>
- **Get Active Session Count in Session Directory Using Posture Service (PostureCount)**  
<https://{mnt node}/ise/mnt/api/Session/PostureCount>
- **Get Active Session Count in Session Directory Using Profiler Service (ProfilerCount)**  
<https://{mnt node}/ise/mnt/api/Session/ProfilerCount>

#### APIs to Get Active Session List

- **Get Active Session Key Information in Session Directory (ActiveList)**  
<https://{mnt node}/ise/mnt/api/Session/ActiveList>
- **Get Active Session Key Information in Session Directory Authenticated within a Specified Period of Time (AuthList)**  
<https://{mnt node}/ise/mnt/api/Session/AuthList/{start time}/{end time}>

#### For more information:

- For more information about using the troubleshooting APIs in this release, see the [Cisco Identity Services Engine API Reference Guide, Release 1.2](#).



#### Note

The [Cisco Identity Services Engine API Reference Guide, Release 1.2](#), also provides information about the supported session management and CoA APIs.

# Contacting the Cisco Technical Assistance Center

If you cannot locate the source and potential resolution for a problem in the above sections, contact a Cisco customer service representative for information on how to best proceed with resolving the issue. For Cisco Technical Assistance Center (TAC), see the *Cisco Information Packet* publication that is shipped with your appliance or visit the following website:

<http://www.cisco.com/tac/>

Before you contact Cisco TAC, make sure that you have the following information ready:

- The appliance chassis type and serial number.
- The maintenance agreement or warranty information (see the *Cisco Information Packet*).
- The name, type of software, and version or release number (if applicable).
- The date you received the new appliance.
- A brief description of the problem or condition you experienced, the steps you have taken to isolate or re-create the problem, and a description of any steps you took to resolve the problem.



## Note

Be sure to provide the customer service representative with any upgrade or maintenance information that was performed on the SNS 3400 Series appliance after your initial installation.

## Documentation Updates

**Table 1** *Updates to Cisco Identity Services Engine Troubleshooting Guide, Release 1.2*

| Date | Description                                 |
|------|---|
| TBD  | Cisco Identity Services Engine, Release 1.2 |

## Related Documentation

### Release-Specific Documents

Table 2 lists the product documentation available for the Cisco ISE Release. General product information for Cisco ISE is available at <http://www.cisco.com/go/ise>. End-user documentation is available on Cisco.com at [http://www.cisco.com/en/US/products/ps11640/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps11640/tsd_products_support_series_home.html).

**Table 2** *Product Documentation for Cisco Identity Services Engine*

| Document Title   | Location  |
|--|---|
| <i>Release Notes for the Cisco Identity Services Engine, Release 1.2</i>           | <a href="http://www.cisco.com/en/US/products/ps11640/prod_release_notes_list.html">http://www.cisco.com/en/US/products/ps11640/prod_release_notes_list.html</a>                         |
| <i>Cisco Identity Services Engine Network Component Compatibility, Release 1.2</i> | <a href="http://www.cisco.com/en/US/products/ps11640/products_device_support_tables_list.html">http://www.cisco.com/en/US/products/ps11640/products_device_support_tables_list.html</a> |

**Table 2**      **Product Documentation for Cisco Identity Services Engine (continued)**

| Document Title   | Location  |
|--|---|
| <i>Cisco Identity Services Engine User Guide, Release 1.2</i>  | <a href="http://www.cisco.com/en/US/products/ps11640/products_user_guide_list.html">http://www.cisco.com/en/US/products/ps11640/products_user_guide_list.html</a>                         |
| <i>Cisco Identity Services Engine Hardware Installation Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html</a>               |
| <i>Cisco Identity Services Engine Upgrade Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html</a>               |
| <i>Cisco Identity Services Engine Migration Guide for Cisco Secure ACS 5.1 and 5.2, Release 1.2</i>  | <a href="http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html</a>               |
| <i>Cisco Identity Services Engine Sponsor Portal User Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/products_user_guide_list.html">http://www.cisco.com/en/US/products/ps11640/products_user_guide_list.html</a>                         |
| <i>Cisco Identity Services Engine CLI Reference Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/prod_command_reference_list.html">http://www.cisco.com/en/US/products/ps11640/prod_command_reference_list.html</a>                   |
| <i>Cisco Identity Services Engine API Reference Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/prod_command_reference_list.html">http://www.cisco.com/en/US/products/ps11640/prod_command_reference_list.html</a>                   |
| <i>Cisco Identity Services Engine Troubleshooting Guide, Release 1.2</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/prod_troubleshooting_guides_list.html">http://www.cisco.com/en/US/products/ps11640/prod_troubleshooting_guides_list.html</a>         |
| <i>Regulatory Compliance and Safety Information for Cisco Identity Services Engine, Cisco 1121 Secure Access Control System, Cisco NAC Appliance, Cisco NAC Guest Server, and Cisco NAC Profiler</i> | <a href="http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html">http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html</a>               |
| <i>Cisco Identity Services Engine In-Box Documentation and China RoHS Pointer Card</i>   | <a href="http://www.cisco.com/en/US/products/ps11640/products_documentation_roadmaps_list.html">http://www.cisco.com/en/US/products/ps11640/products_documentation_roadmaps_list.html</a> |

## Platform-Specific Documents

Links to other platform-specific documentation are available at the following locations:

- Cisco ISE  
[http://www.cisco.com/en/US/products/ps11640/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps11640/prod_installation_guides_list.html)
- Cisco Secure ACS  
[http://www.cisco.com/en/US/products/ps9911/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps9911/tsd_products_support_series_home.html)
- Cisco NAC Appliance  
[http://www.cisco.com/en/US/products/ps6128/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps6128/tsd_products_support_series_home.html)
- Cisco NAC Profiler  
[http://www.cisco.com/en/US/products/ps8464/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps8464/tsd_products_support_series_home.html)
- Cisco NAC Guest Server  
[http://www.cisco.com/en/US/products/ps10160/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps10160/tsd_products_support_series_home.html)



# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

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